Texas Commission on Environmental Quality
Office of the Chief Clerk
MC-105
P.O. Box 13087
Austin, Texas 78711-3087
Submitted electronically via http://www14.tceq.texas.gov/epic/eComment/

Re: Public meeting request and public comments in response to Amended Notice of Application and Preliminary Decision to issue Air Quality Permit No. 2501A to Valero Refining-Texas, L.P.

Dear Executive Director,

Earthjustice submits these comments on behalf of Texas Environmental Justice Advocacy Services ("T.E.J.A.S.") and the Sierra Club's Lone Star Chapter ("Commenters"). These comments respond to the Texas Commission on Environmental Quality's ("TCEQ" or "Commission") Amended Notice of Application and Preliminary Decision for an Air Quality Permit ("NAPD") regarding Valero Refining-Texas, L.P.'s ("Valero") application to amend Air Quality Permit Number 2501A, which would authorize hydrogen cyanide ("HCN") emissions from the Fluid Catalytic Cracking Unit ("FCCU"). We are submitting these comments by the NAPD's April 10, 2018, deadline to request a public meeting to allow for meaningful public comment.

We also provide comments here explaining why the Executive Director ("ED") must deny Valero's proposed hydrogen cyanide emissions limit. As discussed below, the ED and TCEQ may not lawfully issue this permit due to its lack of authority and because issuing a permit with this limit would violate applicable requirements. In addition, and alternatively, even if it could otherwise do so, the ED may not issue the permit application without first evaluating, addressing and correcting the additional issues discussed herein, providing an adequate opportunity for public review and comment, and strengthening the terms and conditions in the Draft Permit. In sum, as discussed below, the Permit Amendment Source Analysis & Technical Review ("Technical Review") has not shown that Valero's application thus far is adequate to satisfy federal law applicable to Valero's permits and Texas law governing the Commission's duties to protect public health and to protect communities overburdened by Valero's pollution and other nearby polluting industries.

In addition, Commenters also request to be added to the mailing list for this permit amendment and future permit actions for this Valero facility.

### INTRODUCTION AND COMMENTS SUMMARY

The TCEQ received Valero's application that is the subject of the current NAPD on February 10, 2014, and declared it administratively complete on February 24, 2014. Valero published the Notice of Receipt of Application and Intent to Obtain Air Permit ("NORI") in English on March 20, 2014, and in Spanish on March 21, 2014. The NORI stated: "The facility

will emit the following contaminants: organic compounds, carbon monoxide, sulfur dioxide, nitrogen oxides, sulfuric acid, and particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less." The NORI did not provide notice of hydrogen cyanide emissions although this was legally required to be included. Valero submitted publication affidavits to the TCEQ Chief Clerk and represented that the notices included hydrogen cyanide as a contaminant emitted from Valero's FCCU. It is unclear why the ED did not correct this notice violation. Instead, the ED created the technical review and submitted the Draft Permit.

Valero published the NAPD in English on March 9, 2018, and in Spanish on March 11, 2018. The NAPD stated: "The amendment will authorize the addition of the following new air contaminant: hydrogen cyanide (HCN)." Under the Commission's rules, public comments on this notice and draft permit are due by April 10, 2018, and these comments and public meeting request are timely filed.<sup>3</sup>

T.E.J.A.S. is dedicated to providing community members with the tools necessary to create sustainable, environmentally healthy communities. T.E.J.A.S.'s goal is to promote environmental protection through education, policy development, community awareness, and legal action. T.E.J.A.S. believes that everyone, regardless of race or income, is entitled to live in a clean environment. T.E.J.A.S. members and constituents live, work, worship, attend school, engage in recreation and other regular activities near Valero's facility located at 9701 Manchester St., Houston, Harris County, Texas 77012. T.E.J.A.S. members and constituents are also surrounded by other heavily polluting industrial facilities along the Houston Ship Channel, including: LyondellBassell-Houston Refining, the Motiva Enterprises oil refinery, Pasadena Refining System, Inc., the Arkema Inc. chemical manufacturing plant in Houston, the Chemical Exchange Industries chemical processing and manufacturing plant, the Channel Energy Center oil refinery, the Kinder Morgan Inc. oil refinery, the Flint Hills Resources oil refinery, the Channel Biorefinery & Terminals, LLC biodiesel refinery and bulk liquid storage facility, and the Shell Deer Park Manufacturing Complex. Unfortunately, air pollution as well as fires, explosions, chemical leaks, flaring, clouds of smoke, odors, and related hazards are part of life for these Texas residents whose health and quality of life regularly suffer from exposure to emissions from heavily polluting industries.

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<sup>&</sup>lt;sup>1</sup> 30 Tex. Admin. Code ("TAC") §§ 39.411(e)(10), (16) (TCEQ Text of Public Notice, requiring "at a minimum, a listing of criteria pollutants for which authorization is sought in the application," as well as "any additional information required by the executive director or needed to satisfy federal public notice requirements"); Email from Sheila Moore, TCEQ Air Permits Initial Review Team to Matthew Lindquist and Rob Moore, Valero Refining-Texas, L.P. (February 20, 2014) (Ms. Moore attached a draft of the NORI and stated that "[t]he public notice is a legally approved document and only the items listed below are subject to approval/correction. If draft approval is not received within 2 working days, the notice package will be filed with the Chief Clerks' office "As Is". Please review the following information carefully and provide us with any corrections as soon as possible." Among the items listed by Ms. Moore is a "contaminant list").

<sup>&</sup>lt;sup>2</sup> Letter from Matthew Lindquist, Valero Refining-Texas, L.P. to TCEQ Chief Clerk, Notice Team (Apr. 1, 2014) (Mr. Lindquist states: "On February 10<sup>th</sup>, 2014 Valero submitted an air quality permit amendment application to add hydrogen cyanide (HCN) as a contaminant for the FCCU Stack (Emissions Point Number 42CB2201). Notices of Receipt of Application and Intent to Obtain Permit were published on March 20<sup>th</sup>, 2014 (English) and March 21<sup>st</sup>, 2014 (Spanish)." However, the attached newspaper clippings do not list hydrogen cyanide as an air contaminant). <sup>3</sup> 30 TAC § 55.152(a)(1) (TCEQ Public Comment Period).

Sierra Club's mission is to explore, enjoy, and protect the wild places of the earth, to practice and promote the responsible use of the earth's ecosystems and resources, to educate and enlist humanity to protect and restore the quality of the natural and human environment, and to use all lawful means to carry out these objectives. The Lone Star Chapter has members who live in east Houston and on the west end of the Houston Ship Channel. Commenters, therefore, have an interest in ensuring that TCEQ follows all federal and state requirements in regard to Valero and does not authorize Valero to avoid reporting or other requirements, or to emit hydrogen cyanide at levels, as TCEQ has found, that are known to cause harm to human health.<sup>4</sup>

### REQUEST FOR PUBLIC MEETING

Commenters request a public meeting pursuant to the Tex. Admin. Code and applicable law to allow for meaningful public participation and for the TCEQ to hear and address the concerns raised by Commenters. As noted above, the NORI did not cite hydrogen cyanide as a possible contaminant; it was only after publication of the NAPD that Commenters were made aware of this critical fact. Since learning this information, T.E.J.A.S. has engaged with affected community members and prepared this set of public comments, however, there has not been adequate time to do so. T.E.J.A.S. seeks to ensure that it and affected members of the public will have an adequate opportunity to evaluate the NAPD and to provide the Commission with further comments for its consideration. Because of the short timeframe and the complex nature of this application, we ask that the public comment deadline be extended until a public meeting is held as allowed by 30 TAC § 55.152(b). Further, Commenters request that this public meeting be held locally in the most-affected and most-exposed neighborhood near Valero<sup>5</sup>, at a time when working people will be able to attend, and include Spanish interpreters. Commenters request the attendance of representatives from the United States Environmental Protection Agency ("EPA") and the TCEQ responsible for reviewing all applicable requirements and considering environmental justice matters related to this application.<sup>6</sup>

# SUMMARY OF TCEQ'S ACTION

The TCEQ ED has preliminarily decided to approve Valero's amendment to Air Quality Control Permit No. 2501A. This permit amendment would add a hydrogen cyanide emissions limit. Valero operates a refinery that is subject to the CAA, including Title V, and the Texas Clean Air Act ("TCAA"). The ED has processed this permit amendment as a preconstruction permit pursuant to the TCAA. If validly issued and after all public notice, EPA review, and other applicable requirements are met, ultimately such a permit amendment would become part of Valero's Title V permit, Permit No. O1381.<sup>7</sup>

<sup>&</sup>lt;sup>4</sup> TCEQ Interoffice Memorandum, Health effects review of emissions from Valero Refining-Texas, L.P., Houston, Harris County, Texas (Permit No. 2501A and Tox Control No. 7385) ("TCEQ Toxicology Division Memo"), July 21, 2017.

<sup>&</sup>lt;sup>5</sup> 30 TAC § 55.154(b) (TCEQ Public Meetings).

<sup>&</sup>lt;sup>6</sup> Commenters make a public meeting request in response to the NAPD and intend to preserve their right to request a public hearing on this permit amendment when the ED seeks to incorporate the term into Valero's Title V permit pursuant to 30 TAC § 122.340(c).

<sup>&</sup>lt;sup>7</sup> See 30 TAC § 122.243.

The ED states that the hydrogen cyanide emissions limit is being incorporated at the direction of the EPA; however, there is no pertinent hydrogen cyanide emissions limit in federal or state law. The ED has provided no evidence regarding what EPA direction or document on which it is relying. The TCEQ can cite to no authority compelling it to take this action. The TCEQ has determined that the proposed hydrogen cyanide emissions limit will not harm human health. Although the Effects Screening Level is surpassed for both short- and long-term health effects, the TCEQ is contending, without citing any authority and without demonstrating how this could be justifiable, that it can still issue this limit because Valero is already emitting HCN at the levels TCEQ analyzed.

Publicly available data show the ED's conclusions are inaccurate and unsupported by current data for Valero. Commenters have attached stack test data that shows Valero has recently submitted stack test data to EPA demonstrating that its actual hydrogen cyanide emissions from this FCCU are approximately only 10% of the emissions limit Valero has represented as its emissions level, and that TCEQ proposes to set as its permit limit. Whether the Commission attempts to issue this under federal law, or as a state-only term, under Texas law, the Commission has not met applicable requirements or made the requisite findings to issue this permit amendment. Therefore, Commenters ask that the Commission deny Valero's application as it relates to the creation of a hydrogen cyanide emissions limit for Air Quality Control Permit No. 2501A.

#### **DETAILED COMMENTS**

- I. The Commission lacks authority to issue this permit amendment which will be incorporated into a CAA Title V permit.
  - a. The Commission has cited no authority allowing it to add an HCN limit into Valero's permit nor shown this is authorized.

At the outset, there is no federal law basis for the hydrogen cyanide limit that the TCEQ proposes to include in Valero's permit. Commission rules adopt federal National Emissions Standards for Hazardous Air Pollutants ("NESHAP") for petroleum refineries<sup>8</sup> and state that Valero's emissions must "meet the requirements of any applicable maximum achievable control technology standard as listed under 40 CFR Part 63, promulgated by the EPA under CAA, §112 or as listed under Chapter 113, Subchapter C of this title (relating to National Emissions Standards for Hazardous Air Pollutants for Source Categories (CAA § 112, 40 CFR Part 63))." Specific NESHAP regulations apply to hazardous air pollutants ("HAPs") emitted from catalytic cracking units, catalytic reforming units, and sulfur recovery units at petroleum refineries. <sup>10</sup> Valero's emissions would come from a Fluid Catalytic Cracking Unit ("FCCU"). <sup>11</sup>

For CAA purposes, emissions of HAPs from major sources are defined as any stationary source with the potential to emit "10 tons per year or more of any hazardous air pollutant or 25

<sup>&</sup>lt;sup>8</sup> 30 TAC § 113.340.

<sup>&</sup>lt;sup>9</sup> 30 TAC § 116.111(a)(2)(F) (citing 42 U.S.C. § 7412).

<sup>&</sup>lt;sup>10</sup> 40 C.F.R. § 63.

<sup>&</sup>lt;sup>11</sup> Technical Review 1.

tons per year or more of any combination of hazardous air pollutants." Congress established, and the EPA may revise, the list of HAPs regulated under CAA § 112. "Cyanide Compounds" are a listed HAP and are defined as "X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)2." However, the EPA has not developed a NESHAP standard specifically for hydrogen cyanide. Nor has the TCEQ conducted a rulemaking to adopt a generally applicable hydrogen cyanide limit. Instead, the EPA has chosen to regulate HCN through setting a NESHAP limiting carbon monoxide as a surrogate pollutant for hydrogen cyanide. Through this permit amendment, the TCEQ proposes to take an entirely different approach to regulate the same HAP. It has cited no basis under the CAA or any other applicable federal requirements to set a limit for HCN and it therefore may not add this to the permit, and ultimately to Valero's Title V permit. TCEQ may not issue this permit limit unless it has authority to do so and meets all requirements, which it has not done for additional reasons described below.

The Technical Review states that the HCN limit is being added at the direction of EPA. There is no authority, document, or evidence provided for why the ED is pointing to EPA, however. As discussed, EPA has not set an HCN limit, and if it did, it would have to meet federal requirements to set such a limit, *see*, *e.g.*, 42 U.S.C. § 7412(d)(2)-(3), (f)(2), which would likely make it more stringent than the limit TCEQ has proposed. Thus, the Technical Review is irrational and the ED's proposal to add the HCN limit is unlawful and arbitrary as it is not supported by the necessary evidence required to justify the basis for the permit change it has proposed.

b. The Commission has not demonstrated that allowing Valero to emit 512.86 tons per year of hydrogen cyanide is more, not less, stringent than the existing NESHAP carbon monoxide standard which regulates HCN.

The TCEQ has authority to set emissions limits more stringent than federal standards<sup>18</sup> but cannot set emissions limits that are less stringent than federal standards.<sup>19</sup> Upon review of the record developed by the TCEQ and discussed below, Commenters could not find any evaluation or evidence in the record showing that the proposed hydrogen cyanide limit is more protective, and is not less protective, than EPA's existing standard.<sup>20</sup> Because the EPA has established a regulation to restrict hydrogen cyanide emissions, the Commission may not lawfully include a hydrogen cyanide emissions limit in Valero's permit that has not been demonstrated to be more

<sup>&</sup>lt;sup>12</sup> 42 U.S.C. § 7412(a)(1); CAA § 112.

<sup>&</sup>lt;sup>13</sup> 42 U.S.C. § 7412(b).

<sup>&</sup>lt;sup>14</sup> 42 U.S.C. § 7412(b)(1).

<sup>&</sup>lt;sup>15</sup> See 40 C.F.R. § 63.1561.

<sup>&</sup>lt;sup>16</sup> Texas Health and Safety Code ("THSC") § 382.0513.

<sup>&</sup>lt;sup>17</sup> 40 C.F.R. § 63.1571(a)(6); 40 C.F.R. Pt. 63, Subpt. UUU, Tbl. 11.

<sup>&</sup>lt;sup>18</sup> THSC § 382.0173(d).

<sup>&</sup>lt;sup>19</sup> 42 U.S.C. § 7416; CAA § 116.

<sup>&</sup>lt;sup>20</sup> Commenters do not believe the CO standard is sufficient to regulate HCN either, as evidence provided in EPA's rulemaking showed that carbon monoxide is a poor regulatory surrogate for hydrogen cyanide at certain temperatures. However, thus far, EPA declined to modify this approach, although it also set a one-time stack-test requirement for HCN to ensure the agency would further evaluate this issue. EPA, Final Rule, Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards, 80 Fed. Reg. 230, 75,203-04 (Dec. 1, 2015) (codified at 40 C.F.R. Parts 60 & 63); 40 C.F.R. § 63.1571(a)(6); 40 C.F.R. Pt. 63, Subpt. UUU, Tbl. 11.

stringent than EPA's standard. To the extent the TCEQ proposes that Valero be allowed to comply with the new hydrogen cyanide limit in lieu of the NESHAP carbon monoxide standard, this would also violate the CAA, 42 U.S.C. § 7416. TCEQ has not provided an evaluation or explanation of how the proposed HCN limit would interact with or affect the existing requirements to which Valero is subject. Before deciding whether to set an HCN limit, the ED must determine whether the hydrogen cyanide limit he proposes to include in Valero's permit would be more stringent than the NESHAP carbon monoxide surrogate, and the record does not include this determination or evidence to support it.

c. TCEQ may not issue a hydrogen cyanide limit for the purpose of or attempting to allow Valero to avoid required federal hazardous substances reporting of this chemical.

Hydrogen cyanide emissions must be reported pursuant to the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. § 11004, and section 103 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9603. Under EPCRA section 304, and CERCLA section 103, a facility must immediately report unpermitted releases of extremely hazardous substances that equal or exceed their reportable quantity to the State Emergency Planning Commission and Local Emergency Planning Committee. <sup>21</sup> EPCRA regulations identify hydrogen cyanide as a hazardous substance and establish the reportable quantity as a release of 10 pounds or more. <sup>22</sup>

As it is unclear why Valero is seeking an HCN limit when this is not directly required by law, Commenters believe Valero may be requesting this to try to avoid EPCRA and CERCLA reporting requirements. Valero releases quantities of hydrogen cyanide that substantially exceed 10 pounds: the 2017 Stack Test found average emissions at this FCCU are 11.2 lb/hr, totaling 49.056 tons per year. The administrative record developed by the ED does not include hydrogen cyanide EPCRA and CERCLA reporting data for this facility. Valero should have attached this data as part of its application, or the ED's staff could have sought this data. Hydrogen cyanide EPCRA reporting data could be illustrative of patterns in hydrogen cyanide releases that would necessitate further Special Conditions in the Draft Permit. The ED has authority to include such data in requisite air dispersion modeling for this application. The ED should request and evaluate such data, before determining whether to issue an HCN limit.

Even though there is no Clean Air Act "applicable requirement" that establishes a federally enforceable limit on Valero's hydrogen cyanide emissions, including a hydrogen cyanide limit in Valero's permit could lead Valero to try to allege that it is a "federally permitted release" and seek an EPCRA and CERCLA reporting exemption pursuant to 40 C.F.R. § 302.6(a). Even though test data for this specific FCCU reported to EPA shows that on average

<sup>&</sup>lt;sup>21</sup> 40 C.F.R. § 355.43(a).

<sup>&</sup>lt;sup>22</sup> 40 C.F.R. §§ 302.3; 302.4.

<sup>&</sup>lt;sup>23</sup> Source Test Report, prepared by Alliance Source Testing for Valero Refining-Texas, L.P. Houston Refinery, Test Dates: July 18–19, 2017 9 (Sept. 13, 2017) ("2017 Stack Test" attached) (the HCN emissions average was 11.2 pounds per hour for three test runs, there are 8,760 hours in a year, thus, this Valero FCCU can be expected to emit 98,112 pounds per year of HCN, or 49.056 tons per year).

<sup>&</sup>lt;sup>24</sup> THSC § 382.0515(2).

<sup>&</sup>lt;sup>25</sup> 30 TAC § 116.111(a)(2)(J).

it emits 49.056 tons of HCN per year, the ED proposes to include a hydrogen cyanide limit of over ten times that amount – 512.86 tons per year based on stack test data from the Valero St. Charles Refinery FCCU. As explained below, the TCEQ should deny this limit and make clear that it has no authority to establish a federally enforceable hydrogen cyanide limit in a Title V permit for the purpose of enabling Valero to avoid EPCRA and CERCLA release reporting.

CERCLA section 101(10)(H) defines "federally permitted release" under the Clean Air Act as:

Any emissions into the air subject to a permit or control regulation under section 111, section 112, title I part C, title I part D, or State implementations plans submitted in accordance with section 110 of the Clean Air Act (and not disapproved by the Administrator of the Environmental Protection Agency), including any schedule or waiver granted, promulgated, or approved under these sections. <sup>26</sup>

While the above definition refers to emissions "subject to a permit or control regulation," that phrase is modified by "under section 111, section 112, title I part C, title I part D, or State implementation plans submitted in accordance with section 110 of the Clean Air Act." In other words, a release cannot become "federally permitted" simply because a state permitting authority decides to put a limit in the facility's Title V permit that is not enforcing any actual federal air pollution control requirement, but is, here, simply rubber-stamping the emissions the facility seeks to emit.

There is simply no federal basis for the hydrogen cyanide limit in Valero's Draft Permit. Rather, Valero may be requesting this limit to avoid otherwise applicable EPCRA and CERCLA reporting requirements, and, potentially to try to avoid enforcement given the fact that the limit Valero seeks is tremendously higher than its current emissions levels. Although the permit notice states that this limit is being added at EPA's direction, there is no evidence of that. Commenters ask the Commission to include language in the Draft Permit to specify that, if the permit is granted, this permit term does not relieve Valero of its duty to report pursuant to EPCRA and CERCLA.

EPCRA reporting is critical to Texas citizens and local governments when faced with chemical releases, incidents, and disasters. TCEQ has acknowledged that HCN is a chemical that has "a reasonable potential in the event of a disaster to cause off-[site] concentrations that are immediately dangerous to life and health," and this chemical is also listed for federal regulation under emergency response and toxic release prevention requirements. Allowing Valero to evade EPCRA reporting for hydrogen cyanide will deprive the Commission and Commission regional staff of an invaluable resource when responding to chemical disasters. Valero's

https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/disrev-factsheet.pdf; EPA Consolidated List of Lists, https://www.epa.gov/sites/production/files/2015-03/documents/list\_of\_lists.pdf.

<sup>&</sup>lt;sup>26</sup> 42 U.S.C. § 9601(10)(H).

<sup>&</sup>lt;sup>27</sup> Id

<sup>&</sup>lt;sup>28</sup> TCEQ Disaster Review Fact Sheet,

proposed hydrogen cyanide limit is at odds with federal law, and not required by Texas law. Commenters urge the Commission to deny Valero's proposed hydrogen cyanide limit.

II. Even if the Commission otherwise had authority, the Commission has failed to follow state and federal requirements to develop an HCN limit that would protect public health and could be added to Valero's permit.

If the Commission decides to proceed with this application, the ED must re-evaluate the application in light of the available stack test data for the FCCU that is the subject of this application, the evidence of health impacts caused by HCN, and the issues identified by Commenters below.

a. The Draft Permit is unlawful and arbitrary because the Commission has not considered the most recent stack test data for hydrogen cyanide emission from the FCCU that is the subject of this application.

When Valero submitted its application on February 10, 2014, it provided the Commission with "stack test data available from an FCCU at the Valero St. Charles Refinery." However, not only is there no evidence that those data show what Valero Houston emits, there is now evidence showing the contrary. The Commission must consider these data before deciding whether to set an HCN limit. The Draft Permit is unlawful and arbitrary because it is not based on current or accurate data and because it is not rational based on the record before the agency.

Pursuant to federal regulations, Valero was required to conduct stack testing for hydrogen cyanide and corresponding carbon monoxide emissions by August 1, 2017. A stack test was performed on Valero's FCCU between July 18 and 19, 2017. A report prepared by Valero, which was submitted to the EPA, if accurate, shows that this Valero FCCU emits an average of 49.056 tons per year. Valero seeks a hydrogen cyanide limit of 512.86 tons per year, which is ten times what that test shows are its current average annual emissions. The Commission should therefore deny the permit application. Allowing Valero to emit a drastically higher amount of hydrogen cyanide than it currently emits has no legal or record support, and will have devastating consequences of neighboring residents.

As further discussed in sections below, using the data originally provided by Valero, the TCEQ Toxicology Division found that modeled hydrogen cyanide emissions exceeded long- and short-term health-based, Effects Screening Levels. Yet, the Toxicology Division concluded that there would be no long- and short-term adverse health effects. The Toxicology Division purported three rationales: that the modeling was conservative, that the Effects Screening Levels are conservative, and that these hydrogen cyanide emissions are existing.<sup>32</sup> Hydrogen cyanide, in fact, is not emitted at the high rate assumed by the Toxicology Division. Regardless, existing emissions, any HCN limit the Commission proposes to set must avoid authorizing harm to public health.

<sup>&</sup>lt;sup>29</sup> Technical Review 1.

<sup>&</sup>lt;sup>30</sup> 40 C.F.R. § 63.1571(a)(6).

<sup>&</sup>lt;sup>31</sup> See 2017 Stack Test, supra note 23.

<sup>&</sup>lt;sup>32</sup> See TCEQ Toxicology Division Memo, supra note 4.

In light of new, relevant data, the ED must review long- and short-term health effects anew. If the Commission decides to proceed with this application and allow Valero to emit its full, existing level of hydrogen cyanide emissions, then the Commission could not set a permit limit that would allow emissions to exceed 49.056 tons per year; it could not possibly set a limit at the level proposed, 512.86 tons per year.

b. The Commission lacks information from which to make the requisite findings pursuant to the Texas Clean Air Act to set a hydrogen cyanide emissions limit and, absent such findings, the Draft Permit is therefore unlawful and arbitrary.

As discussed above, the Commission lacks federal authority to issue the permit amendment. The Technical Review states that Valero's application is subject to the federal NESHAP standards set by the CAA. <sup>33</sup> However, there is no hydrogen cyanide standard in NESHAP, or, applicable Texas standard in Commission rules. In the absence of a federal or state applicable limit, and if the Commission wants to proceed with this application, the Commission must find authority and support its decision pursuant to Texas law. Because Valero seeks to modify its existing permit, the TCAA governs the TCEQ's review of this permit. <sup>34</sup> Commission staff reviewed this permit pursuant to the Commission's permitting authority in Chapters 116 and 122 of the Texas Administrative Code, and the TCAA. <sup>35</sup>

Pursuant to the TCAA, the Commission has a duty to "safeguard the state's air resources from pollution by controlling or abating air pollution and emissions of air pollutants, consistent with the protection of public health, general welfare, and physical property, including the esthetic enjoyment of air resources by the public and the maintenance of adequate visibility." <sup>36</sup> By state law, the Commission's duties extend to permitting actions that would contravene the text or the intent of the TCAA<sup>37</sup> and vest the Commission with authority to preemptively address public health problems. <sup>38</sup> To issue Valero's permit, the Commission must make two findings:

- (1) Valero's facility will use at least the best available control technology ("BACT") to control hydrogen cyanide emissions, considering the technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from its facility; and
- (2) that there is no indication that the emissions from Valero's facility will contravene the intent of the TCAA, including protection of the public's health and physical property.<sup>39</sup>

The Commission cannot make such findings from the administrative record developed for this application.

<sup>&</sup>lt;sup>33</sup> Technical Review 3.

<sup>&</sup>lt;sup>34</sup> THSC § 382.0518(a).

<sup>&</sup>lt;sup>35</sup> *Id.* § 382.001.

<sup>&</sup>lt;sup>36</sup> *Id.* § 382.002(a); TAC § 116.111(a)(2)(A)(i).

<sup>&</sup>lt;sup>37</sup> THSC § 382.0518(d).

<sup>&</sup>lt;sup>38</sup> *Id.* § 382.0205; Tex. Water Code ("TWC") §§ 5.002; 5.102; 5.556(f).

<sup>&</sup>lt;sup>39</sup> THSC § 382.0518(b).

## i. The Commission has not established BACT for hydrogen cyanide.

TCEQ rules provide that BACT applies to all facilities subject to the TCAA. 40 TCEQ rules define BACT as:

"[a]n air pollution control method for a new or modified facility that through experience and research, has proven to be operational, obtainable, and capable of reducing or eliminating emissions from the facility, and is considered technically practical and economically reasonable for the facility. The emissions reduction can be achieved through technology such as the use of add-on control equipment or by enforceable changes in production processes, systems, methods, or work practice."

The BACT discussion found in the Technical Review does not address the technical practicability of *any* specific control technologies, or their economic reasonableness. Instead, the section discusses FCCU stack testing that will be conducted *after* the permit amendment is issued. <sup>42</sup> In fact, Valero's application states that "[a] BACT analysis will be submitted upon request." <sup>43</sup> TCEQ has given no valid or lawful basis for an after-the-fact analysis.

The TCEQ Air Permits Division has published guidance on the TCEQ's three-tier BACT review analysis. <sup>44</sup> The guidance states that "[w]hen applying for a new permit or a permit amendment, it is the applicant's responsibility to submit a complete BACT analysis for each pollutant from each facility subject to review." <sup>45</sup> Further, that if implementation of the identified BACT would be infeasible: "a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT." <sup>46</sup> The Technical Summary in support of the Draft Permit includes no such discussion.

Conducting a BACT analysis for hydrogen cyanide without an opportunity for public participation is neither lawful nor in the best interest of Texans. As shown by the 2017 Stack Test submitted by Commenters, 512.86 tons per year of hydrogen cyanide cannot represent BACT for this FCCU when recent stack tests show it only emits 49.056 tons per year. <sup>47</sup> Commenters seek to assist the Commission in determining what BACT is for hydrogen cyanide from FCCUs, given the severe short- and long-term harm hydrogen cyanide can have on human health. Thus, Commenters urge the ED to conduct a BACT analysis subject to public comment prior to the issuance of Valero's permit amendment.

<sup>&</sup>lt;sup>40</sup> 30 TAC § 116.111(a)(2)(C).

<sup>&</sup>lt;sup>41</sup> *Id.* § 116.10(1).

<sup>&</sup>lt;sup>42</sup> Technical Review 4.

<sup>&</sup>lt;sup>43</sup> Valero's New Source Review Permit Application, § 6. New Source Review Permit Requirements (dated Feb. 18, 2014).

<sup>&</sup>lt;sup>44</sup> Air Permits Division, TCEQ, Air Permit Reviewer Reference Guidance, APDG 6110, Air Pollution Control, How to Conduct a Pollution Control Evaluation (Jan. 2011),

https://www.tceq.texas.gov/assets/public/permitting/air/Guidance/NewSourceReview/airpoll\_guidance.pdf.

<sup>&</sup>lt;sup>45</sup> *Id*. at 13.

<sup>&</sup>lt;sup>46</sup> *Id.* at 6.

<sup>&</sup>lt;sup>47</sup> See 2017 Stack Test, supra note 23.

- ii. Valero's hydrogen cyanide emissions are harming the health of Texans and TCEQ may not rationally conclude otherwise.
  - 1. The TCEQ has failed to articulate a reasoned basis for its conclusions regarding health effects.

The TCEQ Toxicology Division's analysis shows that the permit amendment will not be protective of human health. Thus, issuance of the permit will contravene the TCAA and the permit must be denied.

Using the information Valero provided, the TCEQ Toxicology Division conducted hydrogen cyanide air dispersion modeling to screen for short- and long-term effects on "human health and welfare (odor and vegetation)." <sup>48</sup> The modeling results are startling: hydrogen cyanide emissions exceeded both the short- and long-term health-based environmental screening levels ("ESLs"). The Toxicology Division found:

"The modeled  $GLC_{max}$  [maximum off-property ground level chemical concentration]/ $GLC_{ni}$  [non-industrial receptor ground level concentration] for hydrogen cyanide will exceed the short-term, health-based ESL of 20  $\mu$ g/m³ by  $\underline{3}$   $\underline{times}$ . According to modeled impacts,  $GLC_{ni}$  for hydrogen cyanide will also exceed the long-term, health-based ESL (2  $\mu$ g/m³) by  $\underline{2.4 \ times}$ ."

Nonetheless, the Toxicology Division found the hydrogen cyanide emissions allowable because of the "conservatism of the screen modeling, the conservatism in the ESLs, and the fact that the hydrogen emissions are existing." This determination, and the Draft Permit that relies on it, are unlawful and arbitrary for the following reasons.

That hydrogen cyanide emissions are existing cannot be the basis for finding that Valero's modeled emissions will not harm human health when these exceed short- and long-term health-based ESLs. TCEQ is proposing to add an HCN limit and to do so it must ensure that limit will not allow emissions that harm public health. Further, as shown above, the limit TCEQ is proposing is not actually allowing existing emissions; it would allow 10 times existing emissions. TCEQ has not met requirements to allow an increase in emissions, nor can it justify the health impacts this high HCN limit would allow to occur. Thus, the TCEQ has failed to articulate a reasoned basis for its health effects review and findings.

TCEQ must evaluate the proposed HCN limit based on the best available current science on health effects. Hydrogen cyanide has been used as a chemical warfare agent. <sup>49</sup> Scientific studies have shown that this chemical can cause chronic long-term adverse health effects and can also cause severe harm to human health through acute exposure, as TCEQ's own ESLs recognize. <sup>50</sup> Exposure to hydrogen cyanide can harm the nervous system, the endocrine system, the cardiovascular system, and the reproductive system, including harm to the developing

<sup>&</sup>lt;sup>48</sup> See TCEQ Toxicology Division Memo, supra note 4.

<sup>&</sup>lt;sup>49</sup> *See* Cal. EPA Ofc. of Envtl. Health Hazard Assessment, Hydrogen Cyanide, <a href="https://oehha.ca.gov/chemicals/hydrogen-cyanide">https://oehha.ca.gov/chemicals/hydrogen-cyanide</a>.

<sup>&</sup>lt;sup>50</sup> See TCEQ Toxicology Division Memo, supra note 4.

fetus.<sup>51</sup> Hydrogen cyanide exposure at high levels swiftly harms the brain and heart, beginning with rapid breathing, followed by convulsions, and loss of consciousness, and can even cause coma and death.<sup>52</sup> Lower level exposure to hydrogen cyanide is associated with breathing difficulties, chest pain, vomiting, headaches, and enlargement of the thyroid gland.<sup>53</sup>

TCEQ's Toxicology Division concludes that "we do not anticipate any short- or longterm adverse health effects to occur among the general public as a result of exposure to the proposed emissions from this facility."<sup>54</sup> TCEQ makes this conclusion based on its reliance on HCN's modeled impacts on receptors within 3,000 feet of the facility property line and the stated "conservatism" of the ESL for HCN. Not only has TCEQ not provided the public with detailed reporting on its environmental and health modeling efforts, but it has not shown how the model derived the conclusion that "[t]he modeled GLC<sub>max</sub> [maximum off-property ground level chemical concentration]/GLC<sub>ni</sub> [non-industrial receptor ground level concentration] for hydrogen cyanide will exceed the short-term, health-based ESL of 20 µg/m<sup>3</sup> by 3 times. According to modeled impacts, GLCni for hydrogen cyanide will also exceed the long-term, health-based ESL (2 μg/m<sup>3</sup>) by 2.4 times."<sup>55</sup> In the absence of detailed notation of the TCEQ Toxicology Division's process to derive both the short-term ESL and annual ESL exceedances, Commenters are left unable to interpret the health consequences that may occur as a result of exceeding the short term ESL by 3x and exceeding the long term by 2.4x. The lack in documentation and the public's inability to submit comment on the TCEQ Toxicology Division's assessment is inadequate and unlawful. The Commission cannot make the requisite findings pursuant to the TCAA to issue this permit. <sup>56</sup> The public deserves adequate time to review the TCEQ Toxicology Division's assessment and considerations before making a conclusion that no adverse effects are expected to occur.

The proposed emission rate of 512.86 tons per year ("tpy") would result in 1.4 tons of hydrogen cyanide ("HCN") emitted every single day of the year. To put that in perspective, the 2014 NEI database shows that hydrogen cyanide emissions from Texas alone total 842.95 tpy – accounting for the fact that Valero had zero allowable emissions for HCN, the newly proposed allowable emission of 512.86 tpy will account for a 60% increase in the reported allowable HCN emissions, statewide, from just this one facility. Allowing Valero to emit 1,025,720 pounds per year in view of the substantial identified health risks is arbitrary and lacks a reasoned basis.

<sup>&</sup>lt;sup>51</sup> See Cal. EPA Ofc. of Envtl. Health Hazard Assessment, Hydrogen Cyanide, *supra* note 49; U.S. EPA IRIS, Hydrogen Cyanide and Cyanide Salts, <a href="https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance\_nmbr=60">https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance\_nmbr=60</a> (EPA IRIS inhalations value is based on the need to prevent chronic harm to the endocrine system of exposed people).

<sup>&</sup>lt;sup>52</sup> Assoc. for Toxic Substances & Disease Registry, *ToxFaqs for Cyanide* (last updated Oct. 24, 2011).

<sup>53</sup> Id

<sup>&</sup>lt;sup>54</sup> See TCEO Toxicology Division Memo, supra note 4.

<sup>&</sup>lt;sup>55</sup> *Id*.

<sup>&</sup>lt;sup>56</sup> THSC § 382.0518(b)(2).

<sup>&</sup>lt;sup>57</sup> See NEI 2014 data "Facilities in Texas emitting HCN" (table attached) (According to the 2014 NEI database, there are a total of 40 facilities across all sources (including petroleum refineries) that have reported emissions for HCN. Of the 40, the current top-emitting facility is the Corpus Christi West Plant refinery, which emits 376,372 pounds per year, amounting to 188.19 tpy).

2. The TCEQ must use the best available science to assess health effects of the proposed HCN limit, and ensure that if a limit is set it will not harm public health.

EPA's available chronic reference concentration for inhalation exposure shows ambient exposure should be avoided even below the level of TCEQ's proposed limit, to prevent health threats. EPA's IRIS program has set a reference concentration (RfC) of 0.0008 mg/m³ (or 0.8  $\mu g/m^3$ ) to prevent harm to the endocrine system from inhalation exposure.  $^{58}$  The IRIS Rfc is an order of magnitude lower than the long-term ESL (2.0  $\mu g/m^3$ ) that TCEQ used. This shows that TCEQ's modeling of adverse health effects from the proposed HCN limit <u>underestimates</u> the health effects by 100 times.

It is arbitrary that TCEQ is not using the best available scientific information in evaluating impacts. The TCEQ must perform an analysis of the best available science and health information and evaluate the public health impacts and risks posed by Valero's hydrogen cyanide releases before establishing a permit limit. Furthermore, we urge the Commission to ensure that hydrogen cyanide is not emitted at a level that would exceed the most protective scientifically created reference exposure level for chronic inhalation-based risk, acute risk, and any other potential health or environmental threats.

In addition, the TCEQ Toxicology Division states: "The Valero Refining facility is located in an area surrounded by industry to the west, northwest, east, and southeast and some non-industry receptors (i.e., a church, residences) within 3,000 feet of the site. Site-wide air dispersion modeling (Screen3) was used to predict impacts for hydrogen cyanide emissions." According to EPA, the Screen3 screening-level dispersion modeling program is used to conduct Tier 1 analyses. While SCREEN3 is typically used to estimate an hourly maximum ambient concentration based on hourly emission rates, it can also be used to predict chronic effects once a conversion factor is applied. According to EPA, if a Tier 1 assessment is conducted using SCREEN3 and the risk estimate is at or above the target risk level then conducting a Tier 2 assessment is recommended. A Tier 2 screening assessment will incorporate more realistic estimates of the highest individual risk in areas that people are believed occupy and at the very least, is considered to be a more refined assessment yielding more detailed modeling results. Given the ESL exceedance by a factor of at least 3 for acute, and a factor of at least 2.4 for chronic measures, a more detailed assessment is recommended, following the most current and up-to-date scientific health risk assessment approach.

<sup>&</sup>lt;sup>58</sup> See U.S. EPA IRIS, Hydrogen Cyanide and Cyanide Salts, *supra* note 51; Chem. Assessment Summary (last revised 9/28/2010),

https://cfpub.epa.gov/ncea/iris/iris documents/documents/subst/0060 summary.pdf#nameddest=rfc.

<sup>&</sup>lt;sup>59</sup> See TCEQ Toxicology Division Memo, supra note 4.

<sup>&</sup>lt;sup>60</sup> *See* EPA's Air Toxics Risk Assessment Reference Library Volume 2, Facility-Specific Assessment (Apr. 2004), <a href="https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf">https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf</a>. <a href="https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf">https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf</a>. <a href="https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf">https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf</a>. <a href="https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf">https://www.epa.gov/sites/production/files/2013-08/documents/volume 2 facilityassess.pdf</a>.

3. TCEQ has failed to evaluate or ensure the permit will prevent increased health and safety threats due to significant spikes in HCN from allowing such a high level of annual emissions.

The TCEQ proposed limit could allow a significant amount of HCN to be emitted into local neighborhoods at a given time. A severe spike in these emissions could both cause acute health threats, as discussed above, and create an emergency situation requiring local community members to shelter-in-place or even evacuate (although this is not easy to do in a short period of time for people in the community near Valero). The World Health Organization has acknowledged that while the majority of the general population is exposed to very low levels, there are subgroups of the population that have the greatest potential for much higher exposure, including "those in the vicinity of accidental or intended releases from point sources..." <sup>62</sup> The community members near Valero are particularly vulnerable to these impacts. In addition to acute and chronic human health risks, the Center for Disease Control and Prevention ("CDC") has noted that due to HCN's chemical properties, the HCN gas "mixes well with air, and explosive mixtures are easily formed."63 Explosive potential is severe when hydrogen cyanide (AC) is exposed to heat or flame or to alkaline agents. The CDC goes on to further state, "[T]he agent or its vapors present a vapor explosion and poison (toxic) hazard indoor, outdoors, or in sewers."64 Given the highly explosive nature of this compound and the presence of other compounds with which HCN may come into contact with at the facility, the potential for an explosion, fire, or other accidents must be evaluated and taken into consideration before deciding whether to set a permissible HCN emission limit, and if set, to ensure that limit does not allow spikes in emissions that could create emergency exposure and threaten immediate safety of community members, workers, and first-responders.

4. The Commission has failed to account for the cumulative impacts that affect this Houston, Texas community.

The facts underlying Valero's application trigger the Commission's duty "to protect the public from cumulative risks in areas of concentrated operations." Valero operates and TCEQ proposes to authorize it to release HCN in Houston neighborhoods facing historic disproportionate amounts of environmental harm which have long been neglected by environmental regulatory authorities. People in this community are already exposed to high emissions of various harmful pollutants, and the HCN TCEQ proposes to authorize would add on top of those, causing both direct health threats, and adding to and combining with other health threats to increase and exacerbate the harm to community members' health and safety. Therefore, before issuing a permit allowing HCN emissions, TCEQ must evaluate the full cumulative impacts and risks of these emissions for the people exposed, including T.E.J.A.S. members and constituents.

<sup>&</sup>lt;sup>62</sup>See World Health Organization, Hydrogen Cyanide and Cyanides: Human Health Aspects (2004), http://www.who.int/ipcs/publications/cicad/en/cicad61.pdf.

<sup>&</sup>lt;sup>63</sup> See CDC, National Institute for Occupational Safety and Health, Hydrogen Cyanide (AC): Systemic Agent (November 9, 2017), <a href="https://www.cdc.gov/niosh/ershdb/emergencyresponsecard\_29750038.html">https://www.cdc.gov/niosh/ershdb/emergencyresponsecard\_29750038.html</a>.

<sup>64</sup> Id.

<sup>&</sup>lt;sup>65</sup> THSC § 5.130.

# 5. The TCEQ Toxicology Division's conclusions are invalid because the land surrounding Valero's facility has been mischaracterized.

The Toxicology Division found that "[t]he Valero Refining facility is located in an area surrounded by industry to the west, northwest, east, and southeast and some non-industry receptors (i.e., a church, residences) within 3,000 feet of the site." It also found that one of the GLC<sub>max</sub> areas is just southwest of the property line, at a church. However, the Commission has mischaracterized these exposed areas by downplaying the community members exposed to Valero's emissions. The areas west and southwest of the Valero facility are historically Latino residential neighborhoods. The area north of the Valero facility and the Houston Ship Channel is a historically African American residential neighborhood. In fact, a cluster of historically African American churches sits just 3,000 feet north of the facility. EPA's ECHO data show that 95,180 people live within 3 miles of the Valero refinery, and that the population is 86% Hispanic or Latino, and 92% minority, and there are approximately 30,500 children who live in this area. 66

Commenters have attached photos to illustrate the extensive residential nature of the areas that surround this Valero facility and have also identified, not one, but at least four churches within 3,000 feet of the facility. Valero is about 0.6 mi. from Hartman Park. Children playing at Hartman Park can see Valero's smoke stack just a few blocks away, and, on March 22, 2018, for example, it was possible to observe a menacing cloud of black smoke. The aerial photo provided to the Commission shows Hartman Park at the center, with Interstate 610 along the top of the photo for reference. This Valero facility abuts a quiet, established, extensive, historically Latino residential neighborhood. And, just north of the Houston Ship Channel, the Commission can see photos of residents enjoying a barbeque at the intersection of Bolden St. and Fidelity St., just blocks from St. Matthews Baptist Church. These Texans have a right to clean air.

6. Valero's facility is adjacent to communities with environmental justice concerns and TCEQ must consider these disproportionate impacts before deciding what course to take on the permit application.

Environmental justice concerns are part of the TCEQ requirement to evaluate cumulative risks and impacts. The Center for Science and Democracy at the Union of Concerned Scientists, in partnership with T.E.J.A.S., has studied environmental justice concerns in the communities represented surrounding Valero.<sup>67</sup> The report found that 97% of the people living in the Harrisburg and Manchester neighborhoods are people of color, 90% percent of them are low income, and 37% live in poverty.<sup>68</sup> The report found that "[1]ong-term daily exposures to air pollution can lead to health effects that go unaddressed due to residents' limited financial and health care resources."<sup>69</sup> Even homeowners who have sought to relocate face additional,

<sup>&</sup>lt;sup>66</sup> EPA ECHO Demographic Profile (Based on 2010 US Census Data), <a href="https://echo.epa.gov/detailed-facility-report?fid=110070135386">https://echo.epa.gov/detailed-facility-report?fid=110070135386</a>.

<sup>&</sup>lt;sup>67</sup> Center for Science and Democracy at the Union of Concerned Scientists, *Double Jeopardy in Houston: Acute and Chronic Chemical Exposures Pose Disproportionate Risks for Marginalized Communities* (Oct. 2016) (attached), <a href="https://www.ucsusa.org/center-science-and-democracy/connecting-scientists-and-communities/double-jeopardy#.WsvmIojwZjU">https://www.ucsusa.org/center-science-and-democracy/connecting-scientists-and-communities/double-jeopardy#.WsvmIojwZjU</a>.

<sup>&</sup>lt;sup>68</sup> *Id.* at 5–6.

<sup>&</sup>lt;sup>69</sup> *Id.* at 6.

environmental justice challenges such as depreciated property values because of their proximity to polluting industries. Yet, for decades, these neighborhoods have shouldered intolerable amounts of environmental pollution. This pollution is directly linked to earnings for Valero – earnings that may create economic benefits for some, but not for most of the residents of the Harrisburg and Manchester neighborhoods. Valero has even obtained an estimated \$5,000,000 property tax discount noney that would have otherwise funded public schools serving the Harrisburg and Manchester neighborhoods.

TCEQ does not appear to have considered or evaluated the disparities of this permit's impacts on communities of color and low-income people. Not only is it necessary for TCEQ to grant the public meeting request here, and provide additional evaluation of the health effects due to disparities and unfair exposures, Commenters also request that TCEQ provide information regarding the ED's consideration, if at all, of the inequitable distribution of pollution and health and safety threats from Valero on the nearby communities. The ED should evaluate the demographics, access to health care, baseline health concerns in the community, as well as consider the environmental justice implications of allowing high HCN emissions to be released into this community.<sup>72</sup>

Commenters seek to ensure that the ED provides transparency to the community regarding how the ED is addressing environmental justice issues, and, specifically, whether it has performed any environmental justice review at all for this application, as the record does not show this. In addition, because of the disproportionate exposure and impacts of the Valero permit on vulnerable and highly-exposed communities of color and low-income people, the ED should deny the permit, or in the alternative, recognize that these factors require a much lower HCN limit to be set, with effective testing and monitoring requirements to assure compliance.

c. The Draft Permit is unlawful and arbitrary because the hydrogen cyanide limit will impair the effectiveness of the permit and hinder the TCEQ's ability to enforce the permit.

Title V permitting authorities, such as the TCEQ, may issue state-only requirements in a Title V permit under certain circumstances (and as long as they are not less stringent than federal requirements, as discussed above). Tate-only terms are not subject to the requirements of Title V and hence are not evaluated by the EPA unless those terms are drafted in a way that might impair the effectiveness of the permit or hinder a permitting authority's ability to

 $<sup>^{70}</sup>$  *Id* 

<sup>&</sup>lt;sup>71</sup> Mike Morris, Houston Chronicle, *Split Council approves Valero tax break* (Dec. 17, 2014), <a href="https://www.houstonchronicle.com/news/politics/houston/article/Split-Council-approves-Valero-tax-break-5963725.php">https://www.houstonchronicle.com/news/politics/houston/article/Split-Council-approves-Valero-tax-break-5963725.php</a>.

<sup>&</sup>lt;sup>72</sup> As EPA has made clear, the federal environmental justice executive order and guidance on environmental justice concerns in permitting are important considerations. *See*, *e.g.*, Exec. Order No. 12,898, 59 Fed. Reg. 7629 (1994), as amended by Exec. Order No. 12,948, 60 Fed. Reg. 6381 (1995); *see also* EPA Region 6 Regional Implementation Plan To Promote Meaningful Engagement of Overburdened Communities in Permitting Activities, <a href="https://www.epa.gov/sites/production/files/2015-08/documents/r6\_rip\_ej\_permitting07022013.pdf">https://www.epa.gov/sites/production/files/2015-08/documents/r6\_rip\_ej\_permitting07022013.pdf</a>.
<a href="https://www.epa.gov/sites/production/files/2015-08/documents/r6\_rip\_ej\_permitting07022013.pdf">https://www.epa.gov/sites/production/files/2015-08/documents/r6\_rip\_ej\_permitting07022013.pdf</a>.
<a href="https://www.epa.gov/sites/production/files/2015-08/documents/r6\_rip\_ej\_permitting07022013.pdf</a>.

implement or enforce the permit."<sup>74</sup> Where states have conflated federal and state-only requirements, the EPA has found cause to reopen permits and direct the permitting authority to correct this mistake.<sup>75</sup> The Technical Review states that the proposed hydrogen cyanide limit "is being added to the permit at the direction of EPA" but fails to cite any federal statute or regulation that would substantiate this claim or show why EPA would have directed such a high limit.<sup>76</sup> TCEQ may not lawfully add this permit term because its inclusion will impair the effectiveness of the permit and hinder the TCEQ's ability to enforce Valero's permit.

If issued, the TCEQ will create duplicative hydrogen cyanide emissions regulation in Valero's permit which will leave TCEQ Region 12 investigators and the Harris County Pollution Control Services Department with two hydrogen cyanide-related limits to enforce – one direct HCN limit and one CO standard, regulating HCN through a surrogate. What is more perplexing is that the TCEQ has not shown whether the hydrogen cyanide emissions limit it proposes is more stringent than the existing NESHAP carbon monoxide standard, as discussed above. Because of avoidable regulatory confusion and the fact that the Commission has not shown this limit will not cause problems in ensuring the permit's effectiveness, the Commission should deny the permit. Creating enforcement confusion has strong potential to result in harm to the Commenters' health and safety. In the neighborhoods around Valero, that are highly exposed to toxic and harmful air pollution, there is a particular need for more and stronger, not weaker, enforcement. Therefore, Commenters urge TCEQ not to set a limit with any potential to cause confusion for enforcement of the air pollution limits in the permit, or to cause confusion or a potential loophole to evade emergency release reporting requirements, as further discussed above.

# III. If TCEQ sets a hydrogen cyanide limit, it must add permit conditions that assure compliance with that limit.

Even, assuming arguendo that the Commission had authority and could otherwise meet requirements to set a hydrogen cyanide emissions limit in Valero's permit (although it cannot for reasons discussed above), the limit would have to be set at a level that the Commission has reasonably determined is protective of public health. To set such a limit, TCEQ would have to reduce it to ensure no adverse health effects, using the most current reference concentration, including EPA's IRIS Rfc, and by considering the addition of these emissions on top of other emissions from nearby facilities through a cumulative impacts and risk assessment. TCEQ cannot show that any such limit could be set above the 49 tpy level at which Valero has recently reported its emissions to EPA, and to protect public health, it would have to be lower than that for reasons discussed above.

Further, given the nature of hydrogen cyanide, an annual hydrogen cyanide limit is very unlikely to serve that purpose. Rather, a reasonable, health-based hydrogen cyanide limit must be

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<sup>&</sup>lt;sup>74</sup> In the Matter of Harquahala Generating Station Project, Order on Petition, at 5 (July 2, 2003); see also In the Matter of Hu Honua Bioenergy Facility, Order on Petition No. IX-2011, at 21 (Feb. 7, 2014).

<sup>&</sup>lt;sup>75</sup> In the Matter of Scherer Steam-Electric Generating Plant Juliette, Georgia Permit No. 4911-207-0008-V-03-0 Hammond Steam-Electric Generating Plant Coosa, Georgia Permit No. 4911 -115-0003-V-03-0 Wansley Steam-Electric Generating Plant Carrollton, Geo, Order Granting in Part and Denying in Part Five Petitions for Objection to Permits, 2014 WL 4292216, at \*11 (Apr. 14, 2014).

<sup>&</sup>lt;sup>76</sup> Technical Review 4.

set on a much shorter time-frame, such as an hourly limit. That would aim to prevent extreme harm from acute exposure and also strengthen safety protections by reducing the threat of a high release that could both cause health harm and potential immediate danger to nearby community members.

In addition, in the event the Commission adds an HCN limit at any level, any such limit must be accompanied by adequate testing, monitoring, and reporting to assure compliance with this new limit under federal and Texas law. To Draft Permit Special Conditions 65 and 66 regarding stack testing to be done by Valero within 180 days after the issuance of the permit do not make clear whether this is just implementing the federal one-time stack test that led to the data cited above, or whether this adds another requirement for FCCU stack testing from Valero. Regardless, a one-time limit 180 days after issuance would not be sufficient to assure compliance.

At minimum, TCEQ must add permit conditions that will require annual testing of the FCCU, following applicable EPA test methods, and reporting of these data to TCEQ, to demonstrate it is complying with any HCN limit TCEQ establishes. In addition, due to the requirement that TCEQ may not issue a permit limit that might allow emissions above the level allowed by the NESHAP, TCEQ should also add permit conditions that require reporting of CO emissions and an annual demonstration that TCEQ's HCN limit is not allowing more HCN than compliance with the CO standard would otherwise allow. Due to the acute threat, Commenters also urge TCEQ to require ambient air monitoring at the fenceline to ensure that there are no spikes in HCN that should lead to immediate health and safety protections for community members.

Finally, Draft Permit Special Condition No. 66 states that Valero is to submit stack test data to the TCEQ "and a recommended permit parameter or best practice operating strategy for HCN for normal operation and planned maintenance, startup and shutdown." As discussed above, it is the Commission's duty to set a hydrogen cyanide limit that is protective of public health and to determine what BACT is for hydrogen cyanide. While this duty does not abridge the Commission's ability to consider Valero's recommendation, the Commission may not simply accept Valero's submission as a sufficiently scrupulous analysis. It is insufficient for Valero to submit what it recommends. TCEQ must modify this condition to ensure that it includes specific conditions that assure compliance with all applicable requirements.

<sup>&</sup>lt;sup>77</sup> 42 U.S.C. §§ 7661a(b)(5)(A), 7661c(a), 7661c(c); 40 C.F.R. §§ 70.6(a)(1), 70.6(a)(3), 70.6(c)(1); see also Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008) (explaining that "the 1990 Amendments…. added Title V, which

establishes a permit program to better monitor compliance with emissions standards" and citing the requirement in § 7661c(a) for a permitting authority to add "such other conditions as are necessary to assure compliance with applicable requirements of this chapter").

#### Conclusion

Commenters appreciate the ED's and Commission's consideration of these comments and request for a public meeting. For reasons discussed above, the Commission should deny Valero's proposed permit, including the hydrogen cyanide emission limit or, in the alternative, ensure that if any hydrogen cyanide limit is added, that it meets all applicable federal and state requirements, is sufficiently stringent to protect public health, and that regular monitoring requirements are included in the permit to assure compliance. For additional information on these comments, please contact Isabel G. Segarra Treviño.

Sincerely,

Isabel G. Segarra Treviño Associate Attorney (202) 745-5219 isegarra@earthjustice.org

Emma Cheuse Staff Attorney (202) 667-4500 ext. 5220 echeuse@earthjustice.org

Earthjustice 1625 Massachusetts Ave., NW, Ste. 702 Washington, D.C. 20036-2243

ON BEHALF OF TEXAS ENVIRONMENTAL JUSTICE ADVOCACY SERVICES AND SIERRA CLUB LONE STAR CHAPTER

#### **Enclosures:**

- 1 2017 Valero Stack Test
- 2 Double Jeopardy in Houston
- 3 2014 NEI data
- 4 Neighborhood photos